



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

APR 27 2000

400 Seventh Street, S.W.
Washington, D.C. 20590

DOT-E 8748
(SIXTH REVISION)

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|---------------------------------|
| EXPIRATION DATE: March 31, 2002 |
|---------------------------------|

(FOR RENEWAL, SEE 49 CFR § 107.109.)

1. GRANTEE: Battelle, Pacific Northwest Laboratories
Richland, Washington

(See Appendix A of this exemption for additional grantees)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of Boron trifluoride, Division 2.3, in a non-DOT specification metal pressure envelope contained in a radiation detection system. This exemption provides no relief from any regulation other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 172.101, Column (9A) and (9B); §§ 173.302, 175.3 in that a non-DOT specification packaging is permitted.
5. BASIS: This exemption is based on Battelle, Pacific Northwest Laboratories' application dated April 3, 2000, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR 172.101):

| Hazardous materials description/proper shipping name | Hazard Class/ Division | Identification number | Packing Group |
|--|------------------------|-----------------------|---------------|
| Boron trifluoride, compressed | Division 2.3 | UN1008 | N/A |

7. PACKAGING AND SAFETY CONTROL MEASURES: Packaging prescribed is a radiation detection system having a non-DOT specification metal pressure envelope with welded or soldered joints, and brazed ceramic to metal insulator feed-through assemblies as described in Reuter - Stokes, Inc.'s application of November 5, 1981 and supplemental information of February 5, 1982 on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA).

a. Each envelope must be made with a burst pressure of at least 6 times the filling pressure. The maximum filling pressure may not exceed 25 psig.

b. The volume of each envelope is limited by the equation $V = 1050p$; where V = Volume in cubic inches; P = Filling pressure in psig.

c. The package must be shipped in strong outside packagings complying with § 173.301(k). The completed package must be able to withstand a six foot drop onto an unyielding surface without leakage of contents.

8. SPECIAL PROVISIONS:

a. Persons who receive the packages covered by this exemption may reoffer them for transportation provided no modifications or changes are made to the packages, all terms of this exemption are complied with and a current copy of this exemption is maintained at each facility from which such reoffering occurs.

b. Shippers using the packaging covered by this exemption must comply with all provisions of this exemption, and all other applicable requirements contained in 49 CFR Parts 171-180.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel and cargo aircraft only.

10. MODAL REQUIREMENTS:

a. A copy of this exemption must be carried aboard each cargo vessel or aircraft used to transport packages covered by this exemption. The shipper must furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation laws 49 U.S.C. 5101 et seq.:

- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee," as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incidents involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:



for Robert A. McGuire
Acting Associate Administrator
for Hazardous Materials Safety

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Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: AM(00)

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The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with §§ 107.107 or 107.109, as appropriate:

| Company Name City/State | Application Date | Issue Date | Expiration Date |
|--|-----------------------------|---------------|--------------------|
| Los Alamos National Laboratory, Los Alamos, NM | 9/12/2000 & 9/25/2000 | OCT 5 2000 | 3/31/2002 |

Robert A. McGuire
Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety